

HISTORIC AMERICAN ENGINEERING RECORD
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HAER No. WA-18

Nooksack Falls Hydroelectric Plant
Puget Sound Power and Light Company
Eight miles northeast of Glacier,
on the North Fork of the Nooksack River
Glacier Vicinity
Whatcom County
Washington

Jet Lowe, photographer, July 1987

- WA-18-1 VIEW OF THE POWERHOUSE (CENTER) MACHINE SHOP (LEFT), AND TRANSFORMERS (RIGHT); LOOKING EAST FROM GRAVELED SERVICE ROAD INTO POWERHOUSE COMPLEX.
- WA-18-2 VIEW OF THE MACHINE SHOP (LEFT), AND POWERHOUSE (RIGHT); LOOKING NORTHEAST.
- WA-18-3 WEST FACADE OF POWERHOUSE; LOOKING EAST.
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- WA-18-8 INTERIOR OF POWERHOUSE LOOKING NORTHEAST; DETAIL OF WESTINGHOUSE 1,500 KW, THREE-PHASE, AC GENERATOR (RIGHT), AND THE HOUSING FOR THE PELTON WHEELS (BEYOND); TO THE RIGHT IS THE BELT-DRIVEN DC EXCITER.
- WA-18-9 INTERIOR OF POWERHOUSE LOOKING SOUTH FROM THE OPERATOR'S PLATFORM; VIEW OF WESTINGHOUSE 1,500 KW, THREE-PHASE, AC GENERATOR AND DC EXCITER.

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- WA-18-10** INTERIOR OF POWERHOUSE LOOKING NORTHWEST; VIEW OF WESTINGHOUSE 1,500 KW, THREE-PHASE, AC GENERATOR AND DC EXCITER, EACH OF WHICH ARE DIRECTLY CONNECTED TO THE PELTON WHEELS.
- WA-18-11** INTERIOR OF POWERHOUSE LOOKING NORTHWEST; VIEW OF THE HOUSING FOR THE PELTON WHEELS WITH OPERATOR'S PLATFORM CONTAINING SIX BACKSHOT NEEDLE VALVES AND TYPE "Q" LOMBARD GOVERNOR (CENTER); OVERHEAD IS THE 20-TON TRAVELING CRANE (MANUFACTURED BY NORTHERN ENGINEERING WORKS OF DETROIT, MICHIGAN).
- WA-18-12** INTERIOR OF POWERHOUSE LOOKING NORTHEAST; VIEW OF THE HOUSING FOR ONE OF THE TWO PELTON WHEELS (BOTH OF WHICH WERE MANUFACTURED BY THE PELTON WATER WHEEL COMPANY OF SAN FRANCISCO, CALIFORNIA, 1910), WITH TYPE "Q" LOMBARD GOVERNOR AND BACKSHOT NEEDLE VALVES ON OPERATOR'S PLATFORM.
- WA-18-13** INTERIOR OF WHEEL PIT LOOKING NORTHWEST; DETAIL OF PELTON WHEEL WITH BACKSHOT NOZZLE AND DEFLECTORS (ABOVE), AND UNDERSHOT NOZZLE AND DEFLECTORS (BELOW).
- WA-18-14** INTERIOR OF POWERHOUSE LOOKING SOUTHWEST; VIEW OF NORTH SIDE OF OPERATOR'S PLATFORM SHOWING MAIN OIL PRESSURE TANK (LEFT), AND HYDRAULIC GATE VALVES (ADDED CA. 1930) AT THE BASE OF THE PLATFORM.
- WA-18-15** INTERIOR OF POWERHOUSE LOOKING SOUTHEAST; VIEW OF OPERATOR'S PLATFORM SHOWING TYPE "Q" LOMBARD GOVERNOR, BACKSHOT NEEDLES, 20-TON TRAVELING CRANE, AND MAIN OIL PRESSURE TANK (LOWER LEFT).
- WA-18-16** INTERIOR OF POWERHOUSE LOOKING SOUTH; DETAIL OF TYPE "Q" LOMBARD GOVERNOR.
- WA-18-17** INTERIOR OF POWERHOUSE LOOKING WEST; DETAIL OF TYPE "Q" LOMBARD GOVERNOR.

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- WA-18-18** INTERIOR OF POWERHOUSE LOOKING SOUTHWEST; DETAIL OF CONTROL PANEL.
- WA-18-19** INTERIOR OF POWERHOUSE LOOKING SOUTHWEST; DETAIL OF REAR OF CONTROL PANEL.
- WA-18-20** VIEW OF TRANSFORMERS, INSTALLED CA. 1960S; LOOKING WEST.
- WA-18-21** VIEW LOOKING EAST SHOWING THE DAM ABOVE NOOKSACK FALLS; TO THE LEFT IS THE REINFORCED CONCRETE BOX CULVERT CARRYING WATER FROM THE HEADWORKS TO THE SETTLING BASIN.
- WA-18-22** VIEW ABOVE DAM SHOWING THE HEADWORKS WITH TRASH RACKS AND ELECTRICALLY POWERED LIFT GATES.
- WA-18-23** VIEW OF WOOD STAVE PENSTOCKS (FOUR FEET IN DIAMETER) WITH STEEL BANDS, WOOD AND STEEL FRAMES; STANDING ON TOP OF PENSTOCKS IS DOUG HAMILTON (RIGHT), NOOKSACK FALLS HYDRO-PLANT OPERATOR FOR PUGET POWER, AND KEN ROSE (LEFT) HAER HISTORIAN.
- Note:** The following photographs are photocopies of originals held at the Puget Sound Power & Light Company.
- WA-18-24** HISTORIC VIEW OF NOOKSACK FALLS, TAKEN IN 1904 PRIOR TO CONSTRUCTION OF THE HYDROELECTRIC PROJECT. (J.B. Hahn, photographer, 1904.)
- WA-18-25** HISTORIC VIEW OF POWERHOUSE UNDER CONSTRUCTION; LOOKING WEST. (Photographer unknown, ca. 1905.)
- WA-18-26** HISTORIC OVERVIEW OF NEWLY COMPLETED POWERHOUSE AND COMPANY HOUSES; LOOKING WEST. (Photographer unknown, ca. 1906.)
- WA-18-27** HISTORIC OVERVIEW OF NEWLY COMPLETED POWERHOUSE, COMPANY HOUSES, AND COMPANY HOTEL, AFTER SNOWFALL; LOOKING WEST. (Photographer unknown, ca. 1906.)
- WA-18-28** HISTORIC OVERVIEW OF POWERHOUSE, COMPANY HOUSES, AND

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COMPANY HOTEL, AFTER SNOWFALL; LOOKING WEST. (Photographer unknown, ca. 1910.)

WA-18-29 HISTORIC VIEW OF SOUTH FACADE OF POWERHOUSE; LOOKING NORTH. (Photographer unknown, ca. 1915.)

WA-18-30 HISTORIC VIEW OF INTERIOR OF POWERHOUSE LOOKING EAST; SHOWING OPERATOR'S PLATFORM CONTAINING NEEDLE VALVES AND TYPE "Q" LOMBARD GOVERNOR (CENTER), TRAVELING CRANE (MANUFACTURED BY THE NORTHERN CRANE CO. OF DETROIT, MICHIGAN), AND PLANT OPERATOR, WALTER MANN, (LEFT) AND HIS STEPFATHER, MR. LOCKWOOD. (Photographer unknown, ca. 1920.)

WA-18-31 HISTORIC VIEW OF INTERIOR OF POWERHOUSE LOOKING EAST; SHOWING OPERATOR'S PLATFORM CONTAINING CONTROL PANEL (CENTER), AND TELEPHONE BOOTH (LEFT)--THIS BOOTH WAS NEEDED TO REDUCE PLANT NOISE WHILE USING TELEPHONE. (Photographer unknown, ca. 1920.)

WA-18-32 HISTORIC VIEW JUST WEST OF POWERHOUSE DURING RECONSTRUCTION OF PENSTOCKS AND REPLACEMENT OF ORIGINAL FRANCIS TURBINE WITH PELTON WHEELS, IN 1912; LOOKING NORTHWEST. (Photographer unknown, ca. 1912.)

WA-18-33 SIMILAR VIEW TO WA-18-32: HISTORIC VIEW JUST WEST OF POWERHOUSE DURING RECONSTRUCTION OF PENSTOCKS AND REPLACEMENT OF ORIGINAL FRANCIS TURBINE WITH PELTON WHEELS, IN 1912; LOOKING NORTHWEST. (Photographer unknown, ca 1912.)

WA-18-34 SIMILAR VIEW TO WA-18-32: HISTORIC VIEW JUST WEST OF POWERHOUSE DURING RECONSTRUCTION OF PENSTOCKS AND REPLACEMENT OF ORIGINAL FRANCIS TURBINE WITH PELTON WHEELS, IN 1912; DERRICK USED TO LIFT CONSTRUCTION MATERIALS IN CENTER, THE STAIRWAY TO THE RIGHT LEADS TO THE TRANSFORMER HOUSE, THE GABLE-ROOF BUILDING TO THE RIGHT IS A WORKSHOP (BUILT CA 1904), WHITEWASHED BUILDING TO THE LEFT IS THE COMPANY HOTEL (BUILT CA. 1904, AND THE GABLE-ROOF BUILDING IN THE DISTANCE IS A BARN (BUILT CA. 1904). (Photographer unknown, ca 1912.)

WA-18-35 HISTORIC VIEW OF PENSTOCK REPAIR FOLLOWING 1910s LANDSLIDE

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JUST EAST OF POWERHOUSE; LOOKING EAST. (Photographer unknown, ca. 1910s.)

- WA-18-36 HISTORIC VIEW OF MODIFIED TIMBER KING-POST BRIDGE CROSSING THE NOOKSACK RIVER WEST OF THE POWERHOUSE; EXCELSIOR MINE PROPERTY ON OPPOSITE SIDE OF RIVER; LOOKING SOUTHWEST. (Photographer unknown, ca. 1904.)
- WA-18-37 HISTORIC VIEW OF TIMBER THROUGH HOWE-TRUSS BRIDGE (REPLACED THE EARLIER KING POST SPAN), CROSSING THE NOOKSACK RIVER WEST OF THE POWERHOUSE; EXCELSIOR MINE PROPERTY ON OPPOSITE SIDE OF RIVER; TENT FRAME (LEFT), PICKET FENCE OF COMPANY HOUSE, AND TRANSMISSION LINE IS VISIBLE IN UPPER LEFT AND CENTER; LOOKING SOUTHWEST. (Photographer unknown, ca. 1906.)
- WA-18-38 HISTORIC VIEW OF SOUTH PORTAL OF TIMBER THROUGH HOWE-TRUSS BRIDGE (REPLACED THE EARLIER KING POST SPAN), CROSSING THE NOOKSACK RIVER WEST OF THE POWERHOUSE; LOOKING NORTH. (Photographer unknown, ca. 1906.)
- WA-18-39 HISTORIC PANORAMA OF COMPANY HOUSES (LEFT) HOTEL (RIGHT), TRANSFORMER HOUSE ON HILLSIDE ABOVE POWERHOUSE, AND POWERHOUSE (FAR RIGHT); VIEW FROM ABOVE BRIDGE LOOKING NORTHEAST. (Photographer unknown, ca. 1906.)
- WA-18-40 HISTORIC PANORAMA OF COMPANY HOUSES ON HILLSIDE, BARN BUILDING, A ONE-STORY, UNPAINTED STRUCTURE WITH A GABLE ROOF (CENTER), HOTEL (RIGHT), AND POWERHOUSE (FAR RIGHT); VIEW FROM ABOVE BRIDGE LOOKING NORTHEAST. (Photographer unknown, ca. 1910.)
- WA-18-41 HISTORIC VIEW OF NORTH FACADE OF HOTEL (LEFT), AND ATTACHED GARAGE; PICKET FENCE IN FOREGROUND EXTENDS AROUND ONE OF THE COMPANY HOUSES; LOOKING SOUTH. (Photographer unknown, ca. 1906.)
- WA-18-42 HISTORIC VIEW OF NORTH FACADE OF HOTEL (RIGHT), AND WEST FACADE OF POWERHOUSE; LOOKING EAST. (Photographer unknown, ca. 1910.)